



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,505	04/06/2001	Elliott P. Dawson	12056-2	7931
23676	7590	11/17/2003	EXAMINER	
SHELDON & MAK, INC 225 SOUTH LAKE AVENUE 9TH FLOOR PASADENA, CA 91101			TRAN, MY CHAU T	
			ART UNIT	PAPER NUMBER
			1639	12
DATE MAILED: 11/17/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	09/827,505	Applicant(s)	DAWSON ET AL.
Examiner	My-Chau T. Tran	Art Unit	1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 September 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-16, 18, 19, 21-24 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 and 29-34 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 11-16, 18-19, and 28 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. Applicant's amendment filed 9/10/03 in Paper No. 11 is acknowledged and entered.

Claim 17 is canceled by the amendment. Claim 18 is amended by the amendment.

2. Claims 11-16, 18-19, 21-24, and 28-29 are pending.

Election/Restrictions

3. Claims 29-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to *a nonelected invention*, there being no allowable generic or linking claim.

Election was made **without** traverse in Paper No. 7.

4. This application contains claims 29-34 are drawn to *an invention nonelected* without traverse in Paper No. 7. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

5. Claims 21-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to *a nonelected species*, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

6. Claims 11-16, 18-19, and 28 are treated on the merit in this Office Action.

Maintained Rejections

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

8. Claims 11-16, 18-19, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Stimpson (US Patent 6,037,186; filed 7/16/1997). (*Note: claim 17 is cancelled, however it limitation is included in claim 11*)

Stimpson discloses “a method to produce arrays of compounds for concurrent testing” (Abstract; col. 3, lines 47-54; col. 4, lines 22-34). “Two formats are described using porous rods or porous sheet materials. In both cases, a bundle is formed by radial compression of the rods or spiral wrapping of the sheet. A sheath is applied to the bundle and arrays are cut as slabs. Each synthesis or application step to create an array element is used to fabricate multiple arrays.” The array elements (target substances) comprise biological compounds such as nucleic acid and proteins (col. 3, lines 47-51). The rods comprise materials such as polystyrene or polypropylene (col. 10, lines 16-49). The array elements are attached to the rod (col. 4, lines 7-11) (target substances embedded in a porous rod). The location of the rods and array elements are noted by “marking” the rods (col. 11, lines 18-31). The thickness of the cut slabs is in the range of 0.2-1 mm thick (col. 12, lines 11-14) (refers to claims 15 and 16). The cutting is performed by either a microtome device or laser (col. 12, lines 12-17 and lines 42-54). The array elements can be labeled with either direct or direct labeling with enzymes (col. 11, lines 46-59) (refers to claims 19 and 28). Therefore, the method of Stimpson is anticipated the presently claimed invention.

Response to Arguments

9. Applicant's argument(s) directed to the above rejection under 35 USC 102(e) as being anticipated by Stimpson (US Patent 6,037,186; filed 7/16/1997) for claims 11-19, and 28 was considered but they are not persuasive for the following reasons.

Applicant contends that the method of Stimpson does not anticipate the presently claimed method because the method of Stimpson does not disclosed that "the bundle of target strands has been stabilized by embedding the bundle in a material".

Applicant's arguments are not convincing since the method of Stimpson does disclosed that "the bundle of target strands has been stabilized by embedding the bundle in a material". Stimpson disclosed that the rod elements (target strands) are bundle and secure with a sheath material by heat shrink tubing and radially compressed (col. 14, lines 8-11) (e.g. embedding the bundle in a material). The rod bundles are stable to handling (col. 12, lines 42-43). Therefore the method of Stimpson does anticipate the presently claimed method.

Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., stabilization can be accomplished by embedding the bundle of target-strands in *a matrix*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

10. Claims 11-16, 18-19, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinkel et al. (US Patent 5,690,894) and Stimpson (US Patent 6,037,186). (*Note: claim 17 is cancelled, however its limitation is included in claim 11*)

Pinkel et al. disclose a method “for fabricating biosensors comprising a plurality of biological “binding partners” (molecules that specifically bind other molecules to form a binding complex such as antibody-antigen, lectin-carbohydrate, nucleic acid-nucleic acid, biotin-avidin, etc.) linked to optical fibers” (col. 3, lines 2-7). The multiplicity of optical fibers is bundled together to form an optical fiber array (col. 3, lines 18-20). The binding partner includes nucleic acids, antibodies, proteins, and lectins (col. 3, lines 13-17). The fibers are marks in order to note the location of the binding partner (col. 11, lines 5-13). They can be labeled with a secondary binding partner (col. 13, lines 57-63) (refers to claims 19 and 28).

The method of Pinkel et al. does not expressly disclose that sectioning the bundle of target-strands.

Stimpson discloses “a method to produce arrays of compounds for concurrent testing” (Abstract; col. 3, lines 47-54; col. 4, lines 22-34). “Two formats are described using porous rods or porous sheet materials. In both cases, a bundle is formed by radial compression of the rods or spiral wrapping of the sheet. A sheath is applied to the bundle and arrays are cut as slabs. Each synthesis or application step to create an array element is used to fabricate multiple arrays.” The array elements (target substances) comprise biological compounds such as nucleic acid and proteins (col. 3, lines 47-51). The rods comprise materials such as polystyrene or polypropylene (col. 10, lines 16-49). The array elements are attached to the rod (col. 4, lines 7-11) (target

Art Unit: 1639

substances embedded in a porous rod). The location of the rods and array elements are noted by “marking” the rods (col. 11, lines 18-31). The thickness of the cut slabs is in the range of 0.2-1 mm thick (col. 12, lines 11-14) (refers to claims 15 and 16). The cutting is performed by either a microtome device or laser (col. 12, lines 12-17 and lines 42-54). The array elements can be labeled with either direct or direct labeling with enzymes (col. 11, lines 46-59) (refers to claims 19 and 28).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include sectioning the bundle of target-strands as taught by Stimpson in the method of Pinkel et al. One of ordinary skill in the art would have been motivated to include sectioning the bundle of target-strands in the method of Pinkel et al. for the advantage of providing a three-dimensional array that behave like membrane composed of porous materials and conduct flow through (Stimpson: col. 3, lines 36-46) since both Pinkel et al. and Stimpson disclose method of attaching of binding agent to a rod (Pinkel: col. 10, lines 13-20; Stimpson: col. 4, lines 7-11).

Response to Arguments

11. Applicant's argument(s) directed to the above rejection under 35 USC 103(a) as being unpatentable over Pinkel et al. (US Patent 5,690,894) and Stimpson (US Patent 6,037,186) for claims 11-19, and 28 were considered but they are not persuasive for the following reasons.

Applicant contends that the method combination of Pinkel et al. and Stimpson is non-obvious over the presently claimed method because neither the method of Pinkel et al. nor the method Stimpson disclosed that “the bundle of target strands has been stabilized by embedding the bundle in a material”.

Applicant's arguments are not convincing since the method of Stimpson does disclosed that "the bundle of target strands has been stabilized by embedding the bundle in a material". Stimpson disclosed that the rod elements (target strands) are bundle and secure with a sheath material by heat shrink tubing and radially compressed (col. 14, lines 8-11) (e.g. embedding the bundle in a material). The rod bundles are stable to handling (col. 12, lines 42-43). Therefore the method combination of Pinkel et al. and Stimpson is obvious over the presently claimed method.

Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., stabilization can be accomplished by embedding the bundle of target-strands in *a matrix*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 703-305-6999. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 703-306-3217. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

mct
November 14, 2003



PADMASHRI PONNALURI
PRIMARY EXAMINER